

20000121.ba v02_n785.bam.20000121

>From ???@??? Fri Jan 21 18:40:48 2000 -0600
Date: Fri, 21 Jan 2000 18:38:24 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2785
Message-Id: <20000122004136.3E056274C3@devel43.theporch.com>

BOATANCHORS Digest 2785

Topics covered in this issue include:

- 1) Re: Capacitor Test Question Please (windy)
by Arden Allen <gumbear@pacbell.net>
- 2) Re: Capacitor Test Question Please (windy)
by JACK Iverson <jackiv@juno.com>
- 3) Need G-133F manual
by hikrbikr@erols.com
- 4) al-4
by luc dugas <collins2@globetrotter.net>
- 5) Re: Scott RCH receiver
by Allan Stephens <modsteph@ACS.EKU.EDU>
- 6) Info Wanted, Triplett 3413-A tube tester
by Sheldon Wheaton <swheaton@sky.net>
- 7) ADMINISTRIVIA: Over Quoting
by listown@jackatak.theporch.com (Mail List Owner)
- 8) Test-do not read
by "Ed Tanton" <n4xy@att.net>
- 9) RT-68 on the air during VHF Contest
by "BROWN,MIKHAEL (HP-PaloAlto,ex1)" <mikhael_brown@agilent.com>
- 10) 51J-4 MANUALS
by "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
- 11) Cunningham 301
by "Wilkowski, Joseph" <Joseph.Wilkowski@usa.xerox.com>
- 12) test msg
by Mike Sullivan <michaels@kc2kj.k2nesoft.com>
- 13) Re: MRCG
by jan@skirrow.org
- 14) FS: 1955 Heathkit cat and flyer
by "GREGORY CARTER" <KX4RGC@email.msn.com>
- 15) Tec Scope and related equipment
by CBRENNER@uwec.edu
- 16) TEST MESSAGES ARE FORBIDDEN!!!
by Arden Allen <gumbear@pacbell.net>
- 17) Re: Cunningham 301
by polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
- 18) Re: Cunningham 301

by William Donzelli <aw288@osfn.org>
19) Re: MRCG
by W7QH0@aol.com
20) Tube Info wanted.
by W7QH0@aol.com

Date: Thu, 20 Jan 2000 18:08:24 -0800
From: Arden Allen <gumbear@pacbell.net>
Subject: Re: Capacitor Test Question Please (windy)
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <0F0N009Z4XZR46@mta4.snfc21.pbi.net>
MIME-version: 1.0
Content-type: text/plain; charset=ISO-8859-1
Content-transfer-encoding: 7bit

Hi Garey and all;

You placed in your message the following table:

> $I = K \times C + 0.3$ where C = capacitance in uFd and K is as follows:
>
> 3 to 100 volt rating K= 0.01
> 101 to 250 K = 0.02
> 251 to 350 K = 0.025
> 351 to 450 K = 0.04

I found this same information in a four page 'application note' that came with my Sprague T04 Tel-Ohmike entitled "Capacitor Troubleshooting" by John N. MacDonald of Prague Products Co. So it is from the "horse's mouth", if you will. As stated in the document, K is defined as a "Constant depending on voltage rating of capacitor as noted in below in Table 1. Maximum allowable leakage current for a 25 mfd 50 v dc unit would be: $(.01 \times 25) + 0.3 = .55$ ma. Maximum allowable leakage current for a 10 mfd 450 v dc unit would be $(.04 \times 10) + 0.3 = .7$ ma." The same table also appears in the T04 instruction manual.

In my own experience, a good electrolytic will reform to a respectably low leakage current in about 20 minutes and will easily sustain full rated voltage. Depending on the size of a capacitor, any likelihood of temperature rise can be easily determined by calculating the power dissipation ($P = E / R$). A few hundreds of milliwatts or more is a bad indication as a rising temperature would tend to increase leakage and is more likely a sign of a failing unit. In other words a capacitor that gets warm to the touch can be considered to be a "goner".

With regard to insulation resistance ("I-R") in "paper capacitors" the T04 manual says: "The minimum insulation resistance times capacitance product

for paper tubular capacitors is 1000 megohm-microfarads when new except that capacitors are in no case required to have an insulation resistance of more than 5000 megohms, as per the following table. Molded tubulars will usually exceed these minimum limits by a wide margin" The following table appears:

Capacitance	Minimum I-R
1.0 mfd	1000 megohms
.5	2000
.47	2128
.25	4000
.22	4545
.15	5000
.1	5000

>From the table it follows that any paper capacitor that tests over 5000 megohms is performing like a new unit. Following the table: "Insulation resistance measurements are very much affected by ambient temperature. An ordinary wax tubular will have an I-R at 65C of about 5 percent of its 25C (77F) value."

The T0 series of testers measure insulation resistance by applying 150 volts DC across a capacitor in series with a sensitive current meter to derive an insulation resistance reading. The same sensitive test can be made by applying 150 VDC across a capacitor in series with a VTVM or DVM. Just use Ohm's Law to determine the leakage current where R is the input resistance of the meter (meter reading / input resistance). The capacitor's insulation resistance is then $(150 \text{ V} - \text{meter reading}) / I$.

There are generally two types of non-electrolytic capacitors that were made in the good-ol'-days, those that "make it" and those that don't. The "makers" are always ceramics (if not failed for some other reason), which appear to have an infinite insulation resistance life, micas, which in most units I've tested have very high insulation resistance, some hermetically sealed papers that apparently have virtually no inherent wear-out mechanism, and rarely, some molded types ("black uglies") made in later years that were made with perhaps a paper-plastic film construction. As a practical rule any molded capacitor can be considered to be excessively leaky along with the waxed papers.

As Morris Odell pointed out, what is expected of a capacitor depends more on the circuit it is employed in. A capacitor bypassing a 1500 ohm cathode self biasing resistor would have to be nearly shorted before it would upset the amplifier's bias. On the other hand a leaky plate to grid coupling capacitor would be very upsetting to bias conditions especially with a high value grid resistance. In addition, as pointed out in the Sprague manual, temperature has a pronounced effect on leakage resistance. The same coupling capacitor can be expected to have a much lower resistance when the

circuit, warmed by those roasty-toasty "fire-bottles", reaches operating temperature. A good experiment when measuring leakage resistance is too warm the capacitor with a hair dryer. The increase in leakage will be immediately apparent.

Some say, "replace all the waxy jobs" or "all those black uglies". That may be fine for a radio mechanic, who like a lot of auto mechanics just change parts and don't have a clue as to how they work. But for those who respect the historical value of a collectable careless restoration is a thing to be avoided. Sure, parts fail and if you don't want to change parts don't operate the unit. Changing parts is also a lot of work and there is a risk of damage to other components. How many time did someone "carefully" solder a joint to suddenly smell the burning of insulation? There is nothing uglier than solder iron burns throughout a radio. So, to bring this wind storm to an end, evaluating a capacitor's suitability for continued service in a circuit is a powerful tool as part of one's kit for a masterful restoration job.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Date: Thu, 20 Jan 2000 20:27:10 -0600
Subject: Re: Capacitor Test Question Please (windy)
Message-ID: <20000120.204931.-351035.5.jackiv@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
From: JACK Iverson <jackiv@juno.com>

Thank you Arden, you said it so well. jack iverson, another nut!!

On Thu, 20 Jan 2000 18:08:24 -0800 Arden Allen <gumbear@pacbell.net> writes:

> Hi Garey and all;

>

> You placed in your message the following table:

>

> > $I = K \times C + 0.3$ where C = capacitance in uFd and K is as follows:

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> > 3 to 100 volt rating K= 0.01

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> Just use Ohm's Law to determine the leakage current where R is the
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> capacitor's insulation resistance is then $(150\text{ V} - \text{meter reading}) /$
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> So, to
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> suitability for
> continued service in a circuit is a powerful tool as part of one's
> kit for
> a masterful restoration job.
>
> Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

>

Message-ID: <388780B5.59F7@erols.com>
Date: Thu, 20 Jan 2000 21:40:04 +0000
From: hikrbikr@erols.com
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: "Perry, Hap - WA4UPV" <PERRY0HP3@prodigy.net>
Subject: Need G-133F manual
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Ahoy! At a small hamfest last year I picked up one of those disguised Collins 51S-1 receivers, dressed up as an aircraft radio and bearing the LTV nomenclature G-133F (Osterman, p.208). It's in pretty nice shape, but doesn't work. I passed it on to Hap Perry, WA4UPV, a long time Navy buddy and modern day Collins expert. He's been unable to find a manual for it, however. Would any of you be willing to make a photocopy of yours for me so I can pass it on to him? I would gladly reimburse expenses.

Thanks and 73,
Mike Steussy AE4R
Vienna VA

Message-ID: <3887BF88.94B08CDF@globetrotter.net>
Date: Thu, 20 Jan 2000 22:08:09 -0400
From: luc dugas <collins2@globetrotter.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: al-4
Content-Type: text/plain; charset=koi8-r
Content-Transfer-Encoding: 7bit

i have that antenna and don't for drake 4 it was intended. any clue?
luc ve2lgj 73s

Date: Fri, 21 Jan 2000 10:13:13 -0500
From: Allan Stephens <modsteph@ACS.EKU.EDU>
Subject: Re: Scott RCH receiver
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <38887788.93982398@acs.eku.edu>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit

Possibility: part of a diversity reception setup, with another receiver attached that has an antenna of different polarity, spacing, or on another frequency, receiving same traffic. Redundancy to get the message through.

73, A1 N5AIT

> From: Ron Hershey <rhershey1@uswest.net>
> Subject: Scott RCH receiver

> I just started delving into a US Navy RCH receiver made by E H Scott.
> I'm really curious as to the use of the phone control switch. It allows
> you to listen to the audio output of the RCH, the output of a second
> receiver, or the mixed output of both receivers. What would be the
> purpose of this setup and how would it have been used in actual
> practice?
>
> Thanks,
> Ron Hershey

Date: Fri, 21 Jan 2000 11:01:28 -0600 (CST)
From: Sheldon Wheaton <swheaton@sky.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Info Wanted, Triplett 3413-A tube tester
Message-ID: <Pine.GS0.3.96.1000121105602.12554R-100000@sky.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

A friend of mine recently acquired a Triplett 3413-A tube tester, and would be interested in receiving leads on any information on this piece, including: operating and/or maintenance manual, supplemental tube setting data.

If you can help out, contact him directly: Paul n01rf@amsat.org

Thanks!

Message-Id: <200001211715.e0LHF1E29256@jackatak.theporch.com>
From: listown@jackatak.theporch.com (Mail List Owner)
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ADMINISTRIVIA: Over Quoting
Date: Fri, 21 Jan 100 11:15:01 CST

Gang-

Apparently the gentle nudge and suggestion approach to the issue of improving the quality of posts to the BoatAnchors list, and maintaining our excellent (and high) signal to noise ratio is falling on DEAF EYES!

PLEASE READ THIS AND SAVE IT BECAUSE IT IS IMPORTANT!!!

The list culture is to include only those portions of a prior post that are required to maintain the context of your comments. We have always tried to reduce the amount of "chaf" on the list, and this is one good way.

In private mail between you, a subscriber, and me,, as list manager, I really don't care one way or the other, but when posting to the list, there are at least two issues of concern:

- 1) the increased bandwidth from including extra text.
With the trial subscriptions and full members, the number of copies of each post mailed out change the impact of each extra word so that each single character becomes 1,000 characters of mail!
- 2) by not editing out included text, it sends a not at all subtle message to the list, that the poster considers his/her own time required to merely swipe his mouse across the text and tap the delete key, to be more valuable than the collective time and energy of the 600-700 readers on the list... not exactly a "positive" message! ;^)

This isn't rocket science... you place the pointer at the top of the message you are including *parts* of, and click-drag to where you need to include, and then hit the backspace or delete key... painless, easy, quick, and very helpful to the list.

PLEASE begin to pay attention to this... those who consistently can not be bothered to be considerate of the list will forfeit posting privileges and risk not being invited back for membership.

Treat the list as a symposium. In such an environment, with 600 others attending who have paid to be there, it is unlikely you would repeat someone else's portion of a conversation in its entirety as part of your own remarks... it would become very tedious, very quickly, if you did... especially if you repeated even the closing signature block of the previous message.

Thanks for your understanding and help in making the boatanchors list have the highest signal to noise on the InterNet.

--

73

Jack, W4KH/Mobile - - - BoatAnchor Mailing List Owner - - -

listown@jackatak.theporch.com - "Plus ca change, plus c'est la meme chose"
"Il n'y a que les idiots qui ne changent jamais d'idee"
Fri Jan 21 11:15:00 CST 2000

From: "Ed Tanton" <n4xy@att.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Test-do not read
Date: Fri, 21 Jan 2000 12:38:37 -0500
Message-ID: <NBBBJDEEIFDDANGEGLBIEDBIIAA.n4xy@att.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Sorry for the BW... testing.

Ed Tanton N4XY <n4xy@arrl.net>

Website: www.qsl.net/n4xy

"Do what's right. You'll please some people, and amaze everyone else."

Mark Twain

Message-ID: <AE5322A8186ED311A0CF009027403BC40462399E@xpa01.corp.hp.com>
From: "BROWN,MIKHAEL (HP-PaloAlto,ex1)" <mikhael_brown@agilent.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RT-68 on the air during VHF Contest
Date: Fri, 21 Jan 2000 10:49:47 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

I will be on the air this Saturday during the VHF contest with an RT-68. The RT-68 is a Military Receiver-Transmitter used during the Korean War. I will be operating from Battery Alexander just north of San Francisco. Will be on the primary simplex frequency of 52.525 Mcs. If any Hams are in the area feel free to drop by. I will be in the parking lot at the top.

73's

Mike
N6WIG

Date: Fri, 21 Jan 2000 13:20:48 -0500

From: "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
Subject: 51J-4 MANUALS
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <2000012111321_MC2-95C5-E9F7@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: quoted-printable
Content-Type: text/plain;
charset=ISO-8859-1
Content-Disposition: inline

Group,

If Russ is sold out, and someone still needs one, I have some copies left= that I made several years ago. Someone had an original and wanted some copies so he sent it to me to do the work. I made some extras. The cove= rs are nothing to write home about (due to the color of the original) but th= e rest came out quite nice. Manual was dated 08/15/54.

BTW, Russ, I have an O-16/ART-13 sitting here with your name on it. I du= g through my notes and back email but couldn't figure out whether I had tol= d you that I definitely had one or might have one and would let you know. = If you are thinning out, you may not still want it but someone else may.

Message text written by Old Tube Radios
>Thank you all for the tremendous response. I wish I had a basket of 51J= 4 and Hickok 6000A manuals. It will take me a day or so to straighten everything out and notify the "winners"
<

73,
Robert Downs
WA5CAB
Houston

Content-return: allowed
Date: Fri, 21 Jan 2000 13:50:06 -0500
From: "Wilkowski, Joseph" <Joseph.Wilkowski@usa.xerox.com>
Subject: Cunningham 301
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <DC37797EB8C3D21197280008C74C893D01F75122@USAMCMS2>

MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Folks, I have a Cunningham 301 complete with a removable lead cap (which I presume was for interstage shielding). I have had this tube for 30 years and it was given to me as part of a collection of tubes that some one did not want and I took because I was a young man with no money and basically took anything and everything that no one else wanted.

Anyway, I am assuming this is a triode device with a directly heated cathode as it has 4 pins in the base. This tube has continuity between two of the pins so I presume that the filament/cathode is still good.

Can someone give me an historical prospective on this tube? Is it indeed a triode with a directly heated cathode or is it a diode or either or ? It looks to me like a tube that would have been incorporated in a 1920's design.

Thanks in advance,

/joe k8fc

Message-ID: <3888AB19.50491EA2@kc2kj.k2nesoft.com>
Date: Fri, 21 Jan 2000 13:53:14 -0500
From: Mike Sullivan <michaels@kc2kj.k2nesoft.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: test msg
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

this is a test. please ignore!

Date: Fri, 21 Jan 2000 10:56:28 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: jan@skirrow.org
Subject: Re: MRCG
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Message-Id: <E12BjDu-0001wX-00@mail.islandnet.com>

At 11:47 PM 1/18/00 -0500, you wrote:

>Whats the deal with the Military Radio Collector's Group? Will there be a
>2000 meet in San <mumble,mumble>? Any plans for an East coast version?

Hi Bill...

I think Ed answered part of your query. I was at last year's SLO, and it was a good event! But I think there is an equivalent East Coast group - in fact I think it's called the East Coast Military Radio Collector's Group - but I could have this wrong. I can't think of a contact, but there was someone at SLO last year from this group, so someone who has a list of who attended might have a name???

Also, The Heartland Amateur Radio Association in Overton NE sent me a letter last spring about having such an event in their area sometime in mid-late 2000. The contact there is Gary Reiss, WA0JRM at HARA, 706 Lincoln St. Overton, NE, 68863. This is still a ways away from the East Coast, but a lot closer than SLO!

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

*** Please note that my email address has changed from ***
*** dma@islandnet.com to jan@skirrow.org ***

Message-ID: <002f01bf6441\$957cd020\$e838fea9@oemcomputer>
From: "GREGORY CARTER" <KX4RGC@email.msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FS: 1955 Heathkit cat and flyer
Date: Fri, 21 Jan 2000 13:59:01 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I have for sale a 1955 Heathkit catalog in very good condition.
It would be excellent except the cover is torn around the staples.
Price \$20

Also Spring 1955 Heathkit Flyer, 6 pages, very good with some
discoloration around the edges.
\$5

All plus shipping.
Tnx and 73, Greg KX4R
kx4rgc@msn.com

Message-ID: <3DD3BED8DB4DD311B0EE0020484050DC2C52AC@kyle.uwec.edu>
From: CBRENNER@uwec.edu
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Tec Scope and related equipment
Date: Fri, 21 Jan 2000 13:17:17 -0600

Boatanchor members

I need some information and advice. I have an opportunity to pick up a Tec 561 scope SN 002088 with a 2B67 Time Base SN 011820 and 3A1 Dual Trace Amplifier SN 009972. The unit is operating and in good cosmetic condition. How much is this worth and what would you offer for it if you were to buy it?

At the same time I can get a Tec 160 power supply that drives a 161 Pulse Generator, 162 Waveform Generator, and 163 Pulse generator. Electrical integrity of the above is unknown, but cosmetically they look good. What are they worth and are they something that would be of value to me insofar as they would support my boatanchor addiction of restoring communication receivers? What would be a reasonable price for above.

Thanks in advance for your collective advice and wisdom.

Chuck

Chuck Brenner
WB9GJW

-- "Real Radios Glow In The Dark" --

Date: Fri, 21 Jan 2000 12:05:31 -0800
From: Arden Allen <gumbear@pacbell.net>
Subject: TEST MESSAGES ARE FORBIDDEN!!!
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <0F0P0041TBTTN@mta4.snfc21.pbi.net>
MIME-version: 1.0
Content-type: text/plain; charset=ISO-8859-1
Content-transfer-encoding: 7bit

Before Jack gets around to breaking bones y'all who sent test messages should know they are not permitted. You'll have to bounce your test messages off of someone else, perhaps a list member would be glad to help if you send a direct message. It's sorta like *ham radio*, NO whistling in the mic!! You know where that is done.....

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

The nuts get screwed by the bolts but that's what holds the world together.

Date: Fri, 21 Jan 2000 15:34:31 -0500
From: polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
Message-Id: <200001212034.PAA00865@aa4rm.ba-watch.org.>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Cunningham 301

Joe, the 301 is San Fran's Cunningham version of the UV/UX* 201. RCA allowed those west-coasters to private label / build 'em after a huge harangue.

They're an example of the first big production receiving triode and, since there's no "A-suffix," yours has a 5V 1A filament. The "As" had thoriated tungsten fil.s & only drew .25A... which messed up bunches of early sets that had all tube filaments rheostat'd.

The "metal cup" was an Atwater Kent anti-microphonic (boing, boeing) accessory.

If this was too brief, 'scusa me.

Marty

*UX had short pins, designed for bayonet socket. UVs had longies & just pushed in.

Date: Fri, 21 Jan 2000 15:48:14 -0500 (EST)
From: William Donzelli <aw288@osfn.org>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Cunningham 301
Message-ID: <Pine.SUN.3.91-FP.1000121154705.29852B-1000000@osfn.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

> *UX had short pins, designed for bayonet socket. UVs had longies & just
> pushed in.

Other way 'round...

William Donzelli
aw288@osfn.org

From: W7QH0@aol.com

Message-ID: <b3.6abf67.25ba5045@aol.com>
Date: Fri, 21 Jan 2000 19:13:57 EST
Subject: Re: MRCG
To: Old Tube Radios <boatanchors@theporch.com>
CC: boatanchors@theporch.com
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

Jan,

The two gentlemen from the East Coast who attended last year's meet were Ted Young, W3PWW who is the net control for the East Coast Military Net, and Mike Oxenreider, WB3CTC. Both are from PA. The guys back on the East Coast are working on an MRCG meet for that side next fall. No firm date or place as of yet, though.

I've also received some correspondence from the HARA group but haven't seen a date as of yet for their get-together.

Dennis D. W7QHO

From: W7QHO@aol.com
Message-ID: <b2.7f094a.25ba55d0@aol.com>
Date: Fri, 21 Jan 2000 19:37:36 EST
Subject: Tube Info wanted.
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

All,

Looking for any information on a GL434A transmitting tube. This is an external anode triode about the size of a modern 3CX1200A7. Made by GE, of course, and the box carries a 1943 date.

Thanks,
Dennis D. W7QHO
Glendale, CA

End of BOATANCHORS Digest 2785
